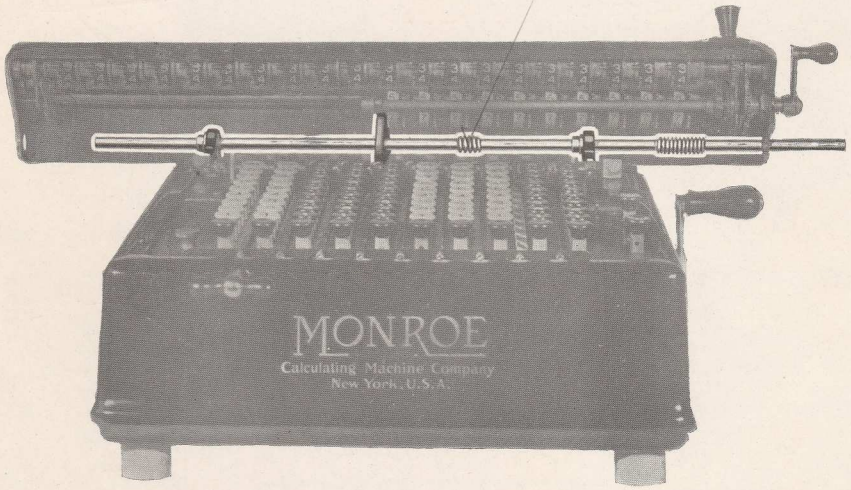
Instructions for Setting Up and Oiling the Monroe Calculating Machine

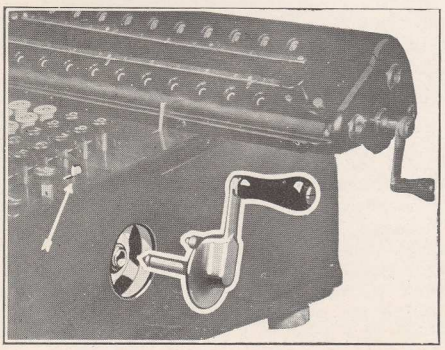
Model K

The machine is packed in two parts. The smaller part which holds the numeral dials is called the Carriage.

Attaching the Carriage.

Remove the small screw at the left end of the long bar. Slide the bar to the right *so as to remove the small spring only.* Place the carriage in its normal position and slide the bar through the right hand frame bearing. Raise the carriage, place the small spring on the bar, being careful not to let it drop into the machine, and slide the bar through the other two bearings, into position, replacing the small screw on the left end.





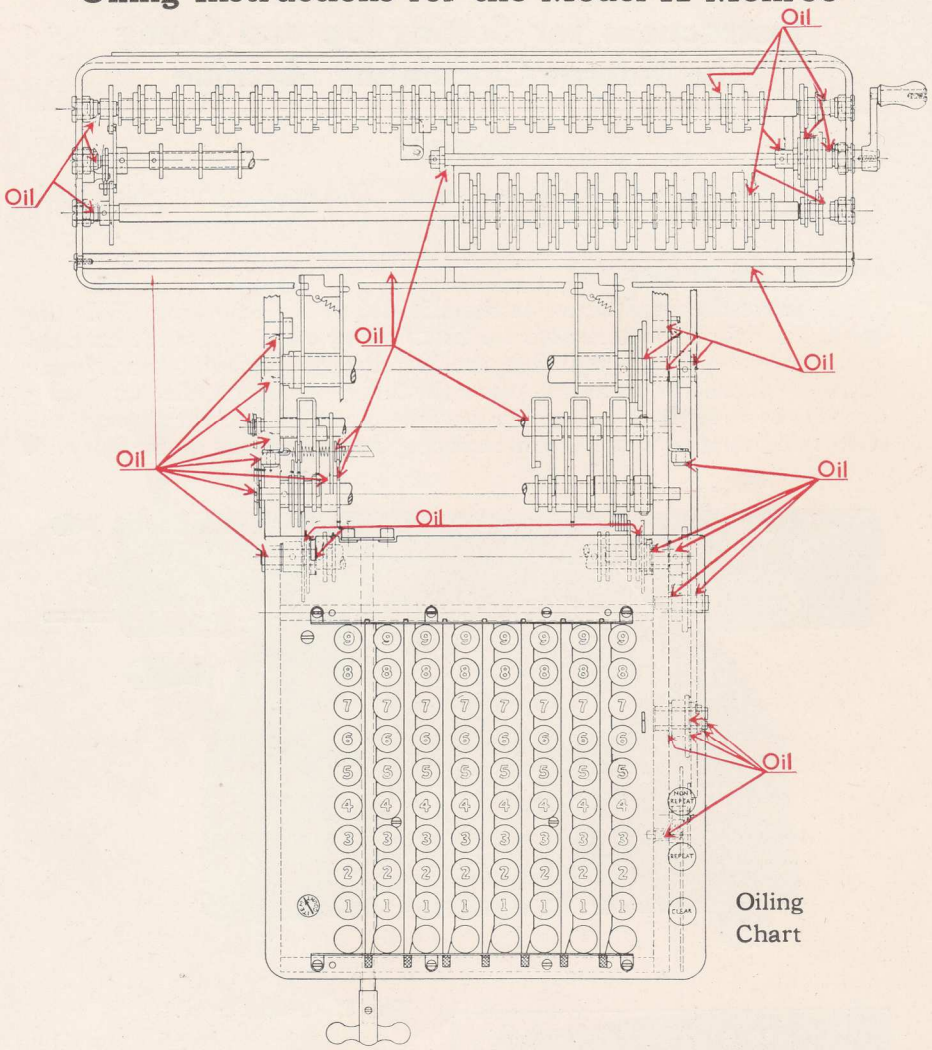
The Clearout Crank.

Attach the small Clear-Out Crank to the right end of the carriage.

The Operating Crank.

Attach the Operating Crank at the right of the machine. Pull toward you the small lever just above the Non-Repeat Key, and push the two shafts of the crank firmly into the holes provided just inside the case.

Oiling Instructions for the Model K Monroe



When in continuous use, the Monroe Calculating Machine should be oiled monthly. When used periodically, it should be oiled once every six weeks or two months.

Use a light oil, like that furnished by the factory, or a sewing machine oil. Apply by means of a piece of wire flattened at the end, or a piece of broom straw.

To oil properly, the carriage and the cover case should be removed. To take off carriage, remove screw on left end of hinge rod outside of carriage case, and draw hinge rod to right until carriage is free; being careful that the shorter bumper spring does not drop into the body of the machine.

To remove cover case: disengage main crank by pushing the latch on top of keyboard, forward, and drawing the crank to the right; take off shifter rod handle from in front of machine by removing the small screw in the handle and pulling the handle forward; push the shifter rod toward back of machine; take out two small screws on each side of machine and lift off the cover case.

Carriage

1. Shaft Bearings: Apply a drop of oil to bearings of upper and lower dial shafts where they enter the carriage bushings. One drop should be applied to bearings of trip rod or center shaft.
2. Carriage Crank Handle: One drop on each bearing of crank handle shaft, and on center bracket. Two drops between adjacent faces of the pair of gears mounted on the crank shaft.
3. Upper and Lower Dials: One drop between each metal gear attached to the dials and its adjacent collar.
4. Hinge Rod: Three or four drops over the length of the hinge rod.

Machine

Intermediate Shaft Assembly: This is the assembly exposed immediately under the carriage when the carriage is lifted.

1. Gears: One drop on right hand side of each gear, between the gear and its adjacent collar.
2. Carrying Wedges (Located at the left of each gear wheel): One drop in space between each wedge and its adjacent collar.
3. Check Rollers (On spring): One drop on each roller where it sets into gear teeth.
4. Bell Trigger: One drop on bearing.

Selecting Gear Shaft: Located under rear edge of top keyboard plate.

1. Shaft Bearings: One drop in each bearing of this shaft at right and left end.
2. Right Hand Carriage Lock Cam: Two drops between the faces of the two cams at right hand end of shaft inside of side frame casting.
3. Left Hand Carriage Lock Cam: One drop on bearing of movable cam inside left side frame casting.

NOTE: Do *NOT* oil sliding gears in middle of shaft.

Carrying Shaft: This is located in the space between the two side castings at the rear of the machine.

1. One drop where the shaft enters the bushings.
2. One drop each side of the counting finger arm mounted on this shaft.
3. One drop on screw stud attached to side frame above carrying shaft on which counting finger arm slides.
4. One drop on bearing of crank locating cam, located on carrying shaft outside Right Hand Side Frame.

Other Oil Points:

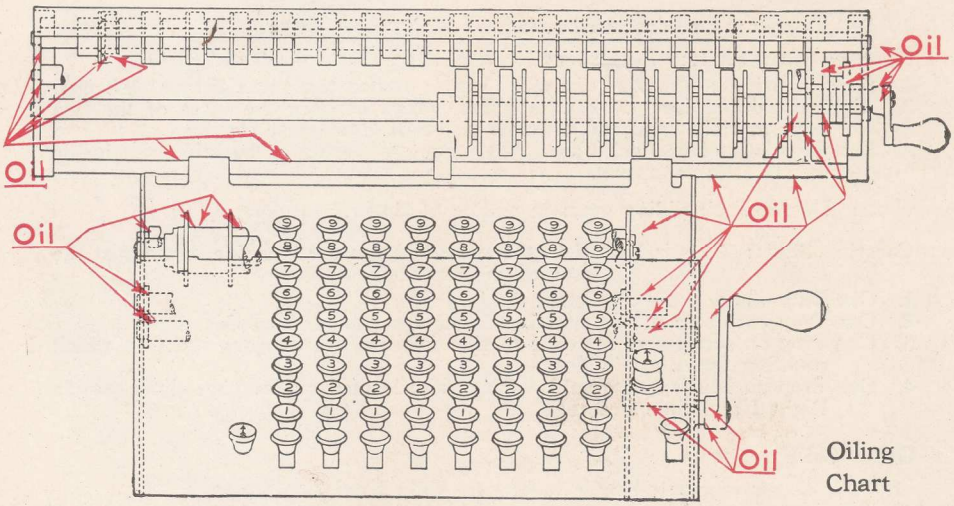
1. Two drops in crank handle bearing in right hand side frame.
2. One drop on each end bearing for driving crank gear.
3. One drop on side of cam beside driving crank gear.
4. One drop on each side of bearing for intermediate driving gear. (Large gear back of driving crank gear.)
5. One drop on bearing for crank locating cam arm (above carrying shaft, outside of right hand side frame) and one drop on the roller on this arm.
6. One drop on bearing for Right Hand Carriage support arm (above handle locating cam arm), and one drop on bearing for roller on the arm.
7. One drop on bearing for Left Hand Carriage support arm, and one drop on roller on the arm.
8. One drop on check pawl (sliding member under carrying shaft inside of right hand side frame).
9. One drop on each side of left hand side frame where bearing for extra-carry pinions enters. (These are two small gears, one inside and one outside of left hand side frame.)
10. One drop on bearing for extra-carry check pawl. (Just under the extra carry pinion.)

Care of the Machine

The machine is very strongly built, and all parts on which there is any amount of wear are of hardened steel; there are no delicate adjustments. These features, the simplicity of the machine and the comparatively small number of parts insure it against mechanical troubles.

It may be subjected to the severest tests and the most constant usage, and will ordinarily require no other attention than the occasional application of a little oil. A few drops of typewriter oil or light oil mixed half and half with kerosene, should be applied once a month.

Oiling Instructions for the Model G



Oiling Chart

Unscrew the carriage hinge rod at the right and remove carriage.

Remove front plate of machine which is held in place by six screws. Take out the screw just under the front and back corner of the keyboard on each side plate. Also pull off the red key top of the "Master Keyboard Clearout" which allows the entire keyboard to be removed by lifting upward and forward.

One drop of oil should be placed on each of the bearings indicated in the diagram. Use a flattened wire or broom-straw.

Do not hesitate to get in touch with the Mechanical Service Department, Orange, N. J., for any information in connection with machine service.